



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/015,739

12/12/2001

Mark Colaio

CF-36

8873

1473

7590

05/27/2004

FISH & NEAVE  
1251 AVENUE OF THE AMERICAS  
50TH FLOOR  
NEW YORK, NY 10020-1105

EXAMINER

CHRISTMAN, KATHLEEN M

ART UNIT

PAPER NUMBER

3713

DATE MAILED: 05/27/2004

13

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/015,739

Applicant(s)

COLAIO ET AL.

Examiner

Kathleen M Christman

Art Unit

3713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31, 33-51 and 53 is/are rejected.
- 7) ☒ Claim(s) 32-34 and 52 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

Art Unit: 3713

## DETAILED ACTION

### *Specification*

1. The abstract of the disclosure is objected to because it contains more than one hundred-fifty (150) words and is more than one (1) paragraph in length. Correction is required. See MPEP § 608.01(b).

### *Claim Objections*

2. Claim 24 is objected to because of the following informalities: the claim listing is in improper Markush listing. See MPEP 2173.05(h). Appropriate correction is required.

### *Claim Rejections - 35 USC § 101*

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 53 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

### *Technological Arts Analysis:*

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply,

Art Unit: 3713

involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts.

In the present case, the claimed invention does not make use of or apply the technological arts. The claimed steps of "comparing product information from the simulated market with product information from a real market for substantially similar products; and creating derivative products based on pricing disparities between the simulated market and said real market any method of depicting financial information do not make use of or apply the technological arts because the steps may be performed as a mental step or process using no more than paper and pencil.

*Useful, Concrete and Tangible Analysis:*

Additionally, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result.

In the present case, the claimed result is useful, concrete and tangible. The derivative product created by the process is a concrete and tangible result that may be used in a trading game or other simulated market.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 2-4 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most

Art Unit: 3713

nearly connected, to make and/or use the invention. The claims recite that the user is provided a "specialist", "Market Maker" or "Broker/Dealer" function, respectively. However, the specification makes no mention of these functions nor the specific features to which they pertain. Without guidance as to what feature or specific applications these functions perform one of ordinary skill in the art would not be able to make and/or use the invention without undue experimentation.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 16 and 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 16, the limitation "the highest account value" is indefinite. The claims do not set forth when or how a user account is established, nor do they provide for a how the value of such an account is monitored or modified. Regarding claim 39, "any method of depicting financial information" is a relative term that renders the claim indefinite. The term "any method of depicting financial information" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably appraised of the scope of the invention.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3713

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1, 5, 7-31 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klein et al (US 6709330 B1). Klein et al teaches a method for playing a simulated training game including: simulating a trading market (the option market simulator, col. 2: 17); providing a simulated product to be traded in within the market (the short stock and options col. 5: 4-5); assigning an amount of the simulated product to a first trader/broker (col.4: 40-44); assigning an amount of simulated funds to a second trader/broker (col. 6 39-44 and col. 18: 59+); providing a medium with the market to trade the simulated product for an amount of simulated funds determined by the first and the second trader/broker (col. 11: 8-55), as in claims 1 and 35. The product is priced based upon factors in the simulated market (claim 5) col. 11: 64 – col. 12- 18. Registration of users (claim 7) including the establishing of an account for the user (claim 8), depositing funds into the account (claim 9) and allowing the user to establish the beginning balance (claim 10) is in shown in col. 18: 59 – col. 19: 50. The method is implemented in a rule-based environment (claim 17), where users are allowed to change the rules (claim 18) or customize the simulation (claim 19) is shown in col. 11: 44-55, and col. 18: 54-58.

Klein et al fails to specifically teach that the product is a "fixed income product" (claims 1 and 15) or that the fixed income product is bonds (claim 25), corporates (claim 26), treasuries (claim 27), swaps (claim 28), REPOs (claim 29), mortgages (claim 30) or derivatives (claim 31). Klein et al does disclose that the commodity being traded is options or short stock. It is the examiner's position that a fixed income product is an art equivalent to the commonly traded options market and that it would have been obvious to one of ordinary skill in the art at the time of invention to implement the Klein et al system with a fixed income product market so as to allow user's to compete in this market. Further, it is the examiner's

Art Unit: 3713

position that the specific product being traded is a matter of design choice. No specific problem or unexpected result is shown for a system which trades a fixed income product or any of its included alternatives (claims 25-31).

Klein et al further does not teach that the traders are individuals (claim 20), a group of individuals (claim 21), students (claim 22), academic departments (claim 23) or schools, colleges, or universities (claim 24). Klein et al does mention that the game applies to both Novice and professional traders (col. 2: 39-41). It is the examiner's position that the particular entity which user's the system, the trader's is not a patentable distinguishing feature and constitutes the intended use of the method. As such the limitations of the claims are given no patentable weight.

Further Klein et al fails to teach requiring a registration fee (claim 11), applying the registration fee (claims 12 and 13), allocating a percentage of the registration fee to a winner's jackpot (claim 14), allowing the trader's to determine a percentage (claim 15) and awarding the winner's jackpot to the trader with the highest account balance (claim 16). Klein et al does however, teach announcing a winner to the as the user with the highest account balance at the end of the simulation (col. 4: 64-65). The above steps describe a standard competition or tournament style game. The examiner takes official notice that competition style games are old and well known to the art of gaming. These are traditionally a tournament type system where everyone pays an entry or registration fee and then competes for the prize. It would have been obvious to one of ordinary skill in the art to incorporate this feature into the Klein et al system so as to allow user's to participate in the system for a possible reward.

7. Claims 36-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hauk et al (US 2003/0126068 A1). Hauk teaches a system for training a plurality of traders (paragraph 15) including: a graphical user interface (paragraph 17); a central processing unit receiving an indication to sell or buy a simulated product (the coder/decoder, paragraphs 18, 20 and 70); where the CPU coordinates the indications to buy and sell so users may exchange the simulated product (paragraphs 44 and 45), as in claim 36. The CPU can respond to a request for information (claim 37), see paragraph 52, last sentence. The GUI includes a trading window (claim 38), see Figures 4, 6, and 7 and paragraph 60. The GUI

Art Unit: 3713

includes and graphs and other ways of displaying financial data (claim 39) see figure 4 elements 492, 494, and 496 and paragraph 56. The GUI includes sell orders and ask price (claim 40), buy orders and bid price (claim 41) and information relating the a transactions (claim 42), see paragraphs 46 and 47. Further the GUI displays simulated market information (claim 43) or real market information (claim 44), see paragraphs 54-56. Displaying product information (claim 45) is the same as displaying the market history of the product, see paragraph 62. The CPU matches requests to buy and sell products (claim 46), see paragraphs 46 and 47 and the CPU processes real-time product information for products in the simulated market (claim 47) or a real market (claims 49, 50 and 51) see paragraph 42 and 43. A transmission medium sends and receives indications between traders, a market source and the CPU (claim 48), see paragraph 35, last sentence and paragraph 73.

Haul does not specifically teach that the traded product is a "fixed income product", but does disclose that the market may be a stock or commodity market where the commodity is "any product that can be bought or sold through an auction process", see paragraph 41. Fixed income products are an art equivalent to stocks and other "commodities" known to the investment banking community. It would have been obvious to one of ordinary skill in the art that to substitute the stock products disclosed with fixed income products so as to train traders in this equivocal market as well.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klein et al (US 6709330 B1) in view of Yoshimi et al (US 6634950 B2). Klein et al teaches all aspects of the invention as shown above with regards to claim 1, except that the pricing of the products are based on the value of a similar product in a real market. Yoshimi et al teaches a simulated trading game in which players make virtual trades of real stocks, see col. 5: 61 – col. 6: 6. It would have been obvious to one of ordinary skill in the art to incorporate this feature into the Klein et al method so as to allow a player to virtually experience changes in assets due to stock price changes in real life, as taught by Yoshimi et al (col. 6: 5-6).

***Allowable Subject Matter***



Art Unit: 3713

9. Claims 32-34 and 52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***


10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- a. Buchalter (US H2064) teaches a trading system for fixed income products
  - b. Holte (US 5713793) teaches a system and method for a simulated market game, where the stock prices are based upon events occurring in the real-world
  - c. Rubin (US 4840382) teaches a financial assets game
  - d. Lockton (US 5083800) teaches a tournament based system
  - e. Summers (US 6408263 B1) teaches a system and method for training management skills, including market trading concepts
  - f. Walker et al (US 5779549) teaches a distributed tournament system with multiple users

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kathleen M Christman whose telephone number is (703) 308-6374. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on (703) 308-1745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3713

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Kathleen M. Christman

  
JOHN M. HOTALING, II  
PRIMARY EXAMINER